

REMARKS

The Office Action dated July 23, 2004, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claim 2 has been amended, and claim 1 has been cancelled without prejudice. Applicants submit that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 2-9 are pending in the present application and are respectfully submitted for consideration.

Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 3-9 of the present application.

Rejection of Claim 1 is Moot

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Tuan (U.S. Patent No. 4,262,342, "Tuan"). As mentioned above, claim 1 has been canceled without prejudice. Thus, the rejection is now moot.

Claims 2-9 Recite Patentable Subject Matter

Claim 2 recites a semiconductor memory device comprising, among other features, a dummy cell which is coupled to a second bit line, and includes a dummy capacitor that is charged with a predetermined potential, said dummy capacitor being electrically connected to the second bit line during a period that overlaps a period during which one of the capacitors is electrically connected to the first bit line, wherein said

fixed time period is constant regardless of intervals at which access is made to said bit line pairs.

It is respectfully submitted that the prior art fails to disclose or suggest at least the above-mentioned features of the Applicant's invention.

In rejecting claim 1, the Office Action characterized Tuan as allegedly disclosing,

in Fig. 1 a memory device comprising: a plurality of bit line pairs 20A and 20B; a plurality of memory cells 23A and 23B including capacitors 25A and 25B; a plurality of dummy cells 27A and 27B of the same structure as that of memory cells 23A and 23B (see lines 6-8, column 3); at the time t1, one of memory cells is selective gated onto bit line 20B while the dummy cells 27a is gated onto bit line 20A (see lines 61-63, column 4); the dummy cell 27A is charged with a predetermined zero volt (see lines 67-68, column 6); sense amplifier 22; control circuit transistor 28A for precharging dummy capacitor 27A to a predetermined voltage level VDD in response to control signal 0P (see lines 51-54, column 4) for a fixed time period time t0 prior time t1. Page 2 of Office Action.

Applicants respectfully traverse the characterization of Tuan and submit that Tuan fails to disclose or suggest each and every element recited in claim 2 of the present application. In particular, it is submitted that the Tuan does NOT teach "precharging dummy capacitor 27A to a predetermined voltage level VDD in response to control signal 0P (see lines 51-54, column 4) for a fixed time period time t0 prior time t1." Rather, Tuan merely shows storing zero volts in the dummy cells 27a, and fails to disclose the length of time for which the dummy cell 27a is precharged. Specifically, column 4, lines 67-68 of Tuan states "the dummy cell 27a always has zero volts stored in it." (Emphasis Added)

Furthermore, Applicants submit that the Office Action mischaracterized Tuan in stating that the “transistor 28A [is] for precharging dummy capacitor 27A.” On the contrary, Tuan provides that it is the bit line 20a that the transistor 28a precharges to VDD, and the transistor 28a has nothing to do with the operation that sets the dummy cell 27a to zero volts.

Hence, Applicants submit that Tuan fails to disclose each and every element recited in claim 2 of the present application, and therefore is allowable.

As claims 3-9 depend from claim 2, Applicants submit that each of these claims incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Conclusion

In view of the above, Applicants respectfully submit that each of claims 2-9 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicants also submit that the subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 2-9 be allowed and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants’ undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300.

Respectfully submitted,



Sam Huang
Registration No. 48,430

Customer No. 004372
AREN'T FOX, PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

SH:grs